

Radiology Compliance Branch RADIATION PROTECTION SECTION



Division of Health Service Regulation • N.C. Department of Health and Human Services

Purpose and Guidelines for a Radiation Protection Program

The Key to Radiation Safety – A Written Radiation Protection Program

A radiation protection program is intended to ensure that all activities and operations involving the use of X-rays are performed in such a way as to protect users, staff, patients and the public from exposure to unnecessary radiation in practices that use X-ray equipment.

The basis of this plan is to maintain all radiation exposures As Low As Reasonably Achievable, which is abbreviated and known as ALARA. This philosophy – ALARA – is defined as making every reasonable effort to maintain exposures to radiation as far below the dose limits as is practical, remaining consistent with the purpose for which the licensed or registered activity is undertaken.

The written radiation protection program is a unique document for each facility, based upon the scope of activities provided by each practice, and is required by the *North Carolina Regulations for Protection Against Radiation*. Rule .1603, titled "Radiation Protection Programs," states that each licensee or registrant shall develop, document and implement a radiation protection program. Since each facility is unique, each written radiation protection program should be customized to its specific activities. Certain records and documents as listed in the regulations that may be consistent for all regulated facilities; however, the day-to-day activities performed within a facility will differ and should be documented to provide radiation protection safety for staff and the public.

Developing a customized radiation protection program can be challenging, so the following information is being provided to assist you when developing or updating your facility's written protection program.

In the past, a model guide for the Preparation of Operation and Safety Procedures has been used but is no longer available from the Radiation Protection Section. This guide has been replaced with a written radiation protection program outline. If a facility has an old model guide and would like to continue with that format, a few items must be updated to ensure it is specific to the facility. To update your written radiation protection program:

- ❖ Compare the model guide to the radiation protection program outline. Be sure to add activities staff is performing that were not addressed in the model guide.
- ❖ Change the model guide heading to the facility's name.
- ❖ Remove sections that do not apply to the facility.
- ❖ Remove the following words in the document – 'model procedures' and 'sample set of procedures.'

An outline of a written radiation protection program is available on the Radiation Protection Web site at www.ncradiation.net, or it can be obtained by calling (919) 814-2250. Ensure the facility's name is in the written radiation protection program. Carefully, review each item listed in the outline to see if it applies to an activity that must be performed or is being performed at the facility. To determine if an item is required or is already being done at the facility and should be included on the written radiation protection program, ask the questions *who, what, when, where, why or how* in order to list the item(s) on the outline and include the appropriate safety measures. It is important to remember to detail exactly how a facility performs an activity on your written radiation protection program.

- ❖ Available online at <http://www.ncradiation.net> are reference guides and links that may be helpful when developing a written radiation protection program. A few of the guides and links are ALARA, Pregnancy-Employee/Patient, Signs and Posting, and links to CRCPD and ARRT.

Once a written radiation protection program is developed, it must be effectively implemented. Every individual working in or near sources of radiation should be trained on the scope, content, and requirements of the program. The regulations require an annual review of the program, which provides a perfect opportunity for the facility to evaluate the written program against actual practice and either update the program or retrain the staff in the proper procedures. Documentation must be available for review during inspections.